

Historical artifacts recovered from the Phase I and II testing included large amounts of window glass fragments, brick, cut and wire nails and nail fragments, bone and shell, lamp glass, bottle and jar glass, whitewares, ironstone, pearlwares, and redwares (Appendix I).

Phase II shovel testing exposed an area of high artifact density (more than 10 artifacts per shovel test pit) east of the Buchanan-Savin farmhouse. The area contained concentrations of architectural and domestic artifacts around the only two identifiable nineteenth-century structures at the site, the Buchanan-Savin farmhouse and a vertical plank storage shed originally constructed as a meat house (Figure 3). The density of artifacts ranged from less than 5 to 72 artifacts per shovel test. Significant densities of greater than 20 artifacts per shovel test pit are shown in Figure 4.

The Data Recovery Plan for the Buchanan-Savin Farmstead (Bachman 1989) determined this area to be the core of the site and represented the main domestic activity area. Bachman recommended that further work should be concentrated in this area. Accordingly, Phase III data recovery was specifically directed to this portion of the study area.

## **RESEARCH DESIGN AND DOMAINS, CONTEXT AND CONSIDERATIONS**

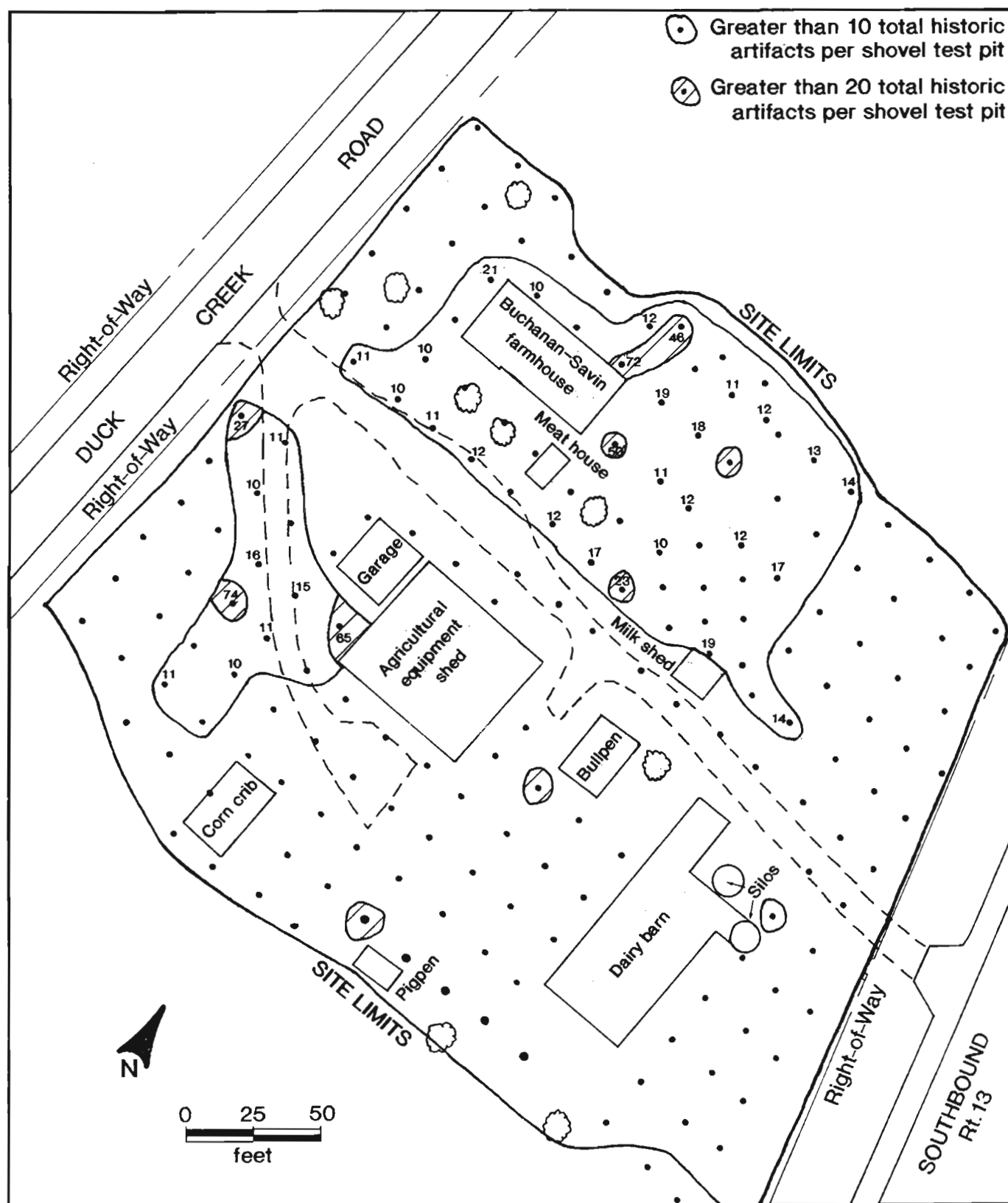
The research perspectives employed to interpret the Buchanan-Savin Farmstead included both historical and archaeological components. Indeed, these categories are interrelated, and information generated from one relies on the other to achieve the highest possible level of understanding. The historical and archaeological perspectives should be viewed as the framework of topics and issues related to the study of a single homestead that help define the over-all interpretation of larger historical processes.

Archival research suggested that the site be divided into three historical occupations, each with the potential to address different historical issues. The first episode was a short probably tenant occupation in the first half of the nineteenth century. The second occupation was one of an owner-occupied grain, livestock, and orchard crop farm from the 1850's to 1921 by two related families, the Buchanans and the Armstrongs. The second period lasted from 1921 to 1969, and was marked by a modern dairy producing farm owned, operated, and occupied by the Moffett family. A new complex of concrete block and frame structures, away from the dismantled nineteenth-century farm, were constructed as a part of this change to dairy farming. The third and final period is that of a tenant household from 1969 to 1991 by the Savin family. The Savins were not farmers and the agricultural buildings were used as storage for farm machinery used on other properties.

A determination-of-eligibility to the National Register of Historic Places and a data recovery plan were prepared to provide an overall research framework for the Phase III excavations at the Buchanan-Savin Farmstead (Appendices II and III). The primary goal of the data recovery program for the Buchanan-Savin Farmstead was to obtain archaeological data related to the changes in the social and economic landscape of central Delaware during the nineteenth and twentieth centuries. Transportation developments, economic and agricultural change in the development of large scale fruit, truck produce, legume, and dairy industries and increased transportation and the expanding regional urban markets, and changing agricultural labor and tenancy patterns are three key issues related to these changes that could be investigated at the Buchanan-Savin Farmstead.

The two most important transportation developments in mid-nineteenth-century Delaware were the completion of the Delaware railroad trunkline through to Seaford in 1856 and the increased use of steamboat transportation on the Chesapeake and Delaware Canal in the second and third quarters of the nineteenth century. The Buchanan-Savin Farmstead was located within two miles of Smyrna, a railroad and water transportation center that serviced the agricultural, fruit processing, and light manufacturing industries of central Delaware (Heite and Heite 1986). Transportation improvements and the presence of large, nearby urban markets stimulated the commercial production of perishable, but

**FIGURE 4**  
**Site Total Historic Artifact Density for**  
**Phase II Shovel Tests**



potentially very profitable, agricultural goods. The demand for Delaware milk, peaches, fodder, and truck produce in Wilmington and Philadelphia fueled commercial production throughout the state.

An additional goal of the data recovery investigations of the Buchanan-Savin Farmstead was to examine changes in spatial organization, food preparation and consumption, and material culture of the site's inhabitants as these altered over time, from both intra- and inter-site perspectives. Other sites in New Castle County with similar temporal periods of occupation, site function, or inhabitants were consulted for comparison. These sites include the Wilson-Slack Agricultural Works Complex (Coleman et al. 1985), the William M. Hawthorn site (Coleman et al. 1984), and the Thomas Williams site (Catts and Custer 1990). The comparative data generated could be used to investigate questions about rural cultural change such as:

1) Are changes present in refuse disposal processes and techniques? Can changes be observed in the patterns of artifact and soil chemical distributions and are these changes indicative of varied spatial utilization at the sites? Furthermore, can such changes in patterns be related to historically documented economic and social changes in the surrounding area or to regional changes?

2) Are there changes in the presence/absence, or frequencies of certain artifact classes among the various historical sites? Can these changes be related to the socio-economic position of the site's occupants or to local and regional economic conditions?

3) Can changes in either of the above categories of data be analyzed for meaningful covariance?

The research goals of the data recovery investigations of the Buchanan-Savin Farmstead were based on the research questions presented in the Route 13 Archaeological Research Plan (Custer, Bachman, and Grettler 1987). In addition, the results of Phase III investigations were incorporated into the broader statewide research program in the Management Plan for Delaware's Historical Archaeological Resources (De Cunzo and Catts 1990). The State Plan is organized along three parameters: time, space, and research domain. The time periods spanning the occupation of the Buchanan-Savin Farmstead are 1830-1880 and 1880-1940. Spatially, 7NC-J-175 was found within the southern most reaches of the High Coastal Plain. The research domains applicable to the Buchanan-Savin Farmstead are Domestic Economy and Landscape.

## **DOMESTIC ECONOMY**

The reconstruction of the household domestic economy offers a view into the central core of the household, the basic unit of production, reproduction, and consumption. De Cunzo and Catts (1990) specify elements of domestic economy: 1) composition and occupational structure of the household; 2) home production of food, shelter, clothing and other basic necessities as well as marketable surplus; 3) consumer behavior, broadly defined to include the households participation in the local barter and/or cash economy; and 4) investment in land, architecture, tools and equipment, livestock, and domestic furnishings.

Reconstruction of the Buchanan-Savin households consisted of archival investigation of the occupants of house, their occupations, and the archaeological investigations of the material culture remains. Investigations of the economic network of George W. Buchanan from the debts of his probate records, inter-site architectural comparisons and economic indexing of ceramic vessel remains also illustrate the household domestic economy within the regional economic and social system.

## **LANDSCAPE**

The Delaware Management Plan suggests that archaeological studies of changing farm practices and land utilization for domestic occupation require site-specific consideration of the entire landscape of the



farm. Changes in farm size, changes in the pattern of agricultural outbuildings and fencelines, changing farm equipment, and changing usage of farm land are all factors that must be investigated (De Cunzo and Catts 1990).

The Delaware Management Plan calls for the study of the landscape and changing settlement patterns through the following research questions: 1) How does the shift in the agricultural economy and farming practices effect settlement patterns? 2) What role does the transformation of the transportation system via the canal and emerging railroad networks play in the changing of settlement patterns? (De Cunzo and Catts 1990:157).

## **SOCIAL GROUP IDENTITY, BEHAVIOR AND INTERACTION**

As the Management Plan points out, the study of social groups intersects with the other research domains, but inspires new directions of research. Family and kinship, ethnic identity and behavior, religious beliefs and associations, community ties, and political, social, economic, and occupational status groups may be investigated to a certain extent at the level of the family/household residential site (De Cunzo and Catts 1990:22).

## **METHODOLOGY**

### **ARCHIVAL METHODS**

The Phase I and II archival research by Grettler et al. (1991) provided a basic chronology of site ownership and site function from 1831 to the present and provided much archival material. Therefore, archival research for the Phase III data recovery investigations of the Buchanan-Savin Farmstead focused on further refining this data, and consulting additional sources not utilized in the Phase I and II investigations. The additional sources provided more detailed knowledge about the site's occupants and function through time. Additional information was gleaned from Appoquinimink Hundred tax assessments, New Castle County will and probate documents, U.S. Census returns from 1850 to 1870. Examinations of deeds, New Castle County Road Petitions and Returns, and Delaware State Directories published in the second half of the nineteenth century were also utilized. Newspaper accounts proved valuable especially concerning George W. Buchanan's trial, since the New Castle Court records for that case are no longer extant.

### **FIELD METHODS**

Field investigations at the Buchanan-Savin Farmstead began with an attempt to reestablish the Phase II site grid. Due to road improvement on Duck Creek Road the original datum point was lost. A new grid of 10x10 ft units was established over the entire site including the specific farmyard area of excavation, the twentieth-century farm buildings and the nineteenth-century farmhouse. The 90x130 ft grid of 10x10 ft blocks covered the area of highest artifact distributions determined in the Phase I and II investigations.

In order to implement the research design and collect data on spatial organization and artifact distribution, a 25 percent stratified, systematic, unaligned sample (Plog 1976) of the plow zone from the main portion of the site was excavated in randomly selected 5x5 ft units from within the larger 10x10 ft sub-units (Figure 5). Plow zone sampling is a standard operating procedure on UDCAR data recovery projects; indeed, research utilizing plow zone soils and artifacts derived from plow zone contexts have suggested the importance of sampling this stratum of a site (Moir and Journey 1987; Pogue 1988; Riordan 1988). Plow zone test units were excavated in one soil level, all soils were screened through 1/4-inch wire mesh, and all artifacts recovered were bagged according to test unit provenience and grid coordinates.